



Department of Commerce

## Safety & Buildings Division

201 West Washington Avenue

P.O. Box 2658

Madison, WI 53701-2658

Evaluation #

200121-I (Replaces 960004-I  
Revised)

# Wisconsin Building Products Evaluation

Material

700 Series Rigid Insulation Boards  
“Energy Board” & “Warm-N-Dri”

Manufacturer

Owens Corning World Headquarters  
400 Case Avenue  
P.O. Box 3012  
Newark, Ohio 43058

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### SCOPE OF EVALUATION

The 700 Series rigid insulation “Energy Board” and “Warm-N-Dri”, manufactured by Owens Corning were evaluated for use in combustible, noncombustible and rated construction in accordance with **s. Comm 51.06(4)** of the current edition of the Wisconsin Administrative Building and Heating, Ventilating And Air Conditioning Code.

The 700 Series rigid insulation “Energy Board” and “Warm-N-Dri”, manufactured by Owens Corning were evaluated for use as an insulation product in residential construction in accordance with **s. Comm 21.11** of the current edition of the Wisconsin Administrative Uniform Dwelling Code.

### DESCRIPTION AND USE

The 700 Series rigid insulation “Energy Board” and “Warm-N-Dri”, varies in density and thickness. “Energy Board” – 5 pound density per cubic foot, is used for water drainage and thermal resistance on exterior foundation walls, below and above grade. “Warm-N-Dri” – 6

pounds per cubic foot, is used for water drainage and thermal resistance on exterior foundation walls, below and above grade.

### TESTS AND RESULTS

Owens Corning Fiberglas 705 Board, 5.0 pounds per cubic foot satisfies the requirements of Federal Specification HH-I-558B, Form A, Class 2 from test data or comparative data from Test Request 51261-6, 704 Board, 4.0 pounds per cubic foot; and Test Request 51261-7, 707 Board, 7.0 pounds per cubic foot. Both 704 and 707 satisfy HH-I-558B requirements.

Since 704 and 707 products bracket the 705 product the following properties were taken from data presented on Test Request 51261-6 and 51261-7: fire hazard classification, temperature rating, moisture absorption, linear shrinkage, density, and apparent thermal conductivity vs. mean temperature.

The following tests were conducted on 705 Board: corrosiveness, dimensions and compressive load.

#### **COMPLIANCE OF 705 BOARD TO HH – I – 558B, FORM A, CLASS 2**

<b>Requirements:</b>			
Property	Test Method	Requirement	Results
Fire Hazard Classification (Index Rating)	4.4.2 <b>ASTM E84</b>	Flame Spread 25 Smoke Development 50	705 Board, Unfaced Flame Spread 25 Smoke Development 50
Corrosiveness (Visual)	4.4.3 ASTM C665 Steel	No greater corrosion than sterile cotton	Passed, better than sterile cotton control
Temperature Rating (Visual at 400° F)	4.4.4 ASTM C411	Class 2, up to 400° F	Pass, no effect on service quality.
Moisture Absorption, % by Volume	4.4.5 ASTM C553	Max. 1% by volume	Pass
Dimensions, inches - thickness - length - width	4.4.6 ASTM C167	Nominal + / - 1/8" thick + / - 1/8" length + / - 1/8" width	Pass Pass Pass
Linear Shrinkage	4.4.7 ASTM C356	2% (max.)	Pass
Density (pcf)	4.4.8 ASTM C 167	12 pcf (max.)	Nominal = 5.0 pcf
Compressive Load	4.4.9 ASTM C165	25 lb./sq. ft. (min.)	Pass
Thermal Conductivity, Btu in./hr. ft <sup>2</sup> , deg. F  At mean temp. = 25 F At mean temp. = 50 F At mean temp. = 75 F At mean temp. = 100 F At mean temp. = 200 F	4.4.11 <b>ASTM C177</b>	Class 2 K max. 0.24 0.25 0.26 0.28 0.35	705 Board Passes  mT      K 25      0.21 50      0.23 75      0.24 100      0.26 200      0.34

### LIMITATIONS OF APPROVAL

The 700 Series rigid insulation “Energy Board” and “Warm-N-Dri”, discussed in this evaluation is approved as an insulation material in accordance with **s. Comm 22.28** and **s. Comm 63.17 (2)(a)1. and (b)**, of the Wisconsin Uniform Dwelling and Building Codes, respectively.

A thermal barrier shall be installed in accordance with **s. Comm 21.11 (1)** of the current edition of the Wisconsin Administrative Dwelling Code (UDC), and **s. Comm 51.06 (2) and (3)** of the current edition of the Wisconsin Administrative Building And Heating, Ventilating and Air Conditioning Code.

The 700 Series rigid insulation “Energy Board” and “Warm-N-Dri” products shall be installed in accordance with the manufacturer’s installation instructions and recommendations.

This approval will be valid through December 31, 2006, unless manufacturing modifications are made to the product or a re-examination is deemed necessary by the department. The Wisconsin Building Product Evaluation number must be provided when plans that include this product are submitted for review.

### DISCLAIMER

The department is in no way endorsing or advertising this product. This approval addresses only the specified applications for the product and does not waive any code requirement not specified in this document.

Revision Date: \_\_\_\_\_

Approval Date: July 17, 2001

By: \_\_\_\_\_

Lee E. Finley, Jr.  
Product & Material Review  
Integrated Services Bureau